

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

THERMAPURE, INC.,)	
)	
Plaintiff,)	
)	
v.)	No. 10 C 8157
)	
RxHEAT, LLC and CAMBRIDGE)	Judge Rebecca R. Pallmeyer
ENGINEERING, INC.,)	
)	
Defendants.)	

MEMORANDUM OPINION AND ORDER

Plaintiff Thermapure, Inc. asks the court to reconsider one aspect of its March 31, 2014 order granting Defendants RxHeat, LLC and Cambridge Engineering, Inc.'s motion for summary judgment of non-infringement. Thermapure argues that the court misconstrued a claim limitation in Claim 8 of Thermapure's U.S. Patent No. 6,327,812 (the "'812 patent") and that, based on Thermapure's preferred construction of this limitation, a fact dispute remains whether Defendants' Z9000 electric heater infringes Claim 8. As explained below, the motion [155] is granted.

BACKGROUND

The facts of this case are generally laid out in the summary judgment ruling, and the court revisits them only briefly here. (See Mem. Op. & Order [153], 1–11.) Thermapure filed this action for infringement against Defendants RxHeat and Cambridge, companies organized and located in Missouri and under "common ownership." (Pl.'s Resp. to Defs.' Statement of Facts [130], hereinafter "Pl.'s Resp. to Defs.' 56.1," ¶¶ 2–3; Defs.' Resp. to Pl.'s Statement of Additional Facts [141], hereinafter "Defs.' Resp. to Pl.'s 56.1," ¶ 9.)¹ The '812 patent covers a

¹ Plaintiff alleges that Defendant RxHeat infringed Claims 4, 6, and 8 of the '812 patent but seeks to hold Defendant Cambridge liable for RxHeat's infringement under an agency or alter ego theory. For the purposes of this memorandum opinion and order, the court refers to them collectively as "Defendants" throughout and discusses Cambridge's potential liability *infra*, at Discussion, Part IV.

method and kit of components for sanitizing buildings and other enclosed spaces by destroying unwanted organisms and toxins. Under the patented method, the targeted space is heated by introducing hot air, which later exits the space through doors, windows, or ducts connected to a filter. ('812 Patent, Ex. C to Pl.'s Mot. for Reconsideration [156-3], hereinafter "Pl.'s Mot." [156], 1:6-9; 1:64-2:8.) The patent identifies several "object[s]" of the invention, including "to filter gases leaving from the enclosure to prevent the allergenic organism remains from entering the environment," and "to remove substantially all of the remains of the killed organisms from open areas in the enclosure." (*Id.* at 2:28-33.) In its final claim contentions, Thermapure asserted that Defendants infringed Claims 4, 6, and 8 of the '812 patent under 35 U.S.C. §§ 271(a)-(c) through use of filters with their heat treatment products (the Rx12/Rx15 line of gas-fueled heaters and the Z9000 electric heater).

The Z9000 is an RxHeat product which may be "set up inside a structure to treat smaller areas, such as individual rooms." (Defs.' Statement of Facts [119], hereinafter "Defs.' 56.1," ¶ 62.)² The Z9000 heats to the "requisite temperatures" and is sold with remote temperature monitoring capability. (Defs.' Resp to Pl.'s 56.1 ¶¶ 11-12.) It comes with a MERV³ 11 "inlet" filter; as air enters the Z9000, it passes through the filter, is heated, exits the unit through a non-filtered opening, and is blown into the enclosure. (Defs.' 56.1 ¶¶ 63, 65.) While the Z9000 typically is set up inside an enclosure to be treated, it may also be set up outside the targeted room with the heated air ducted into the enclosure. (Pl.'s Resp. to Defs.' 56.1 ¶ 64.) The Z9000's instructions state that it comes with "multiple ducting options," including a "12 [inch] intake" and a "12 [inch] supply," and that the unit "can be ducted at the inlet, the outlet or both

² In contrast, the Rx12/Rx15 heaters are gas-fueled, larger in size, always set up outside a structure, and used in both residential and commercial settings. (Defs.' 56.1 ¶¶ 50-51, 64.)

³ "MERV" stands for "Minimum Efficiency Rating Value," which is based on a filter's "capability of capturing or arresting particulates of a specific aerodynamic diameter." (Expert Rep. of Michael Geyer, Ex. 1 to Pl.'s Opp. to Defs.' Mot. to Strike [128], hereinafter "Geyer Rep.") The higher the MERV rating, the smaller the particles that the filter can capture.

using the included round outlet adapter." (RxHeat Z9000 Installation, Operation & Maint. Instructions, Ex. 2 to Pl.'s Resp. to Defs.' 56.1 [130-3], RX000330–331.).)

Claim 8 of the '812 patent reads as follows:

A system for sanitizing an enclosed structure having an exterior and an interior, comprising:

- a source of an environmentally acceptable gas;
 - a heater coupled to said gas source to heat said gas to a predetermined temperature, and *means for introducing a flow of said heated gas into said interior of said enclosed structure*;
 - a filter arranged to allow said flow of heated gas to pass therethrough after passing through said interior of said enclosed structure*;
 - a plurality of temperature indicating probes adapted to be disposed at predetermined locations within said enclosed structure; and
 - a control unit electrically connected to said plurality of temperature indicating probes to thereby provide an indication of temperature at said predetermined locations within said enclosed structure;
- wherein, said heated gas serves to kill organisms and remove toxic substances from within said enclosed structure.

('812 patent at 6:42–66) (emphasis added). Defendants, in support of their motion for summary judgment of non-infringement with respect to Claim 8, argued that the Z9000 does not infringe because it does not have a filter that is arranged as the claim requires. (See Defs.' Mem. in Supp. of Sum. Judg. [118], 12.) Specifically, Defendants argued that the Z9000's filter is placed in front of the heating element, so air passes through the filter before it is heated, something the filter limitation of Claim 8 does not contemplate. (*Id.*; see '812 patent at 6:50–52 ("[A] filter arranged to allow said flow of heated gas to pass therethrough after passing through said interior of said enclosed structure[.]").) Defendants emphasized that the Z9000 uses a filter "to protect the unit's internal components" and not to filter organism remains and toxic substances. (Defs.' Mem. in Supp. of Sum. Judg. at 12.) Thermapure responded by arguing that the Z9000 is, in fact, designed in such a way that air passing through the machine's filter has previously been circulated in the enclosed structure and is therefore already heated. (Pl.'s Resp. to Def.'s Mem. in Supp. of Sum. Judg. [129], 7–8.)

In finding that the Z9000 did not infringe Claim 8, the court construed the claim limitation phrase "means for introducing a flow of said heated gas into said interior of said enclosed structure." The court noted that neither party had provided an interpretation of this limitation, but a construction was nevertheless necessary in order to determine whether the Z9000 infringed Claim 8. (Mem. Op. & Order at 29.) In its analysis, the court first found that this phrase was written in a means-plus-function format, so 35 U.S.C. § 112(f) governed its construction. Section 112(f) allows a claim to "be expressed as a means or step for performing a specified function . . . , construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." 35 U.S.C. §112(f). The court concluded that the specified function of the claim element was "directing a flow of heated gas from the heater and introducing it to the interior of the enclosed structure." (Mem. Op. & Order at 31.) The function's corresponding structure, the court found, was an ingress duct. (*Id.*) The court reasoned that the specification's language repeatedly invoked the use of an ingress duct. In particular, it found persuasive the description of figure 1 in the specification, which teaches that "Heated gas from one or more heaters is directed to a blower (which may, if desired, be a component of the heater) which directs the hot gas into enclosure *through at least one ingress duct*. Generally a plurality of ducts will be used to achieve the optimum distribution of hot gas throughout enclosure." ('812 Patent at 3:16–20) (emphasis added.) The court also noted that the "Summary of the Invention" described installing ingress ducts at multiple places; the court declined to interpret language elsewhere in the Summary that could be read to suggest that ingress ducts are not necessary components of the invention. (Mem. Op. & Order at 30 (refusing to read "heating the gas and directing it into the ingress ducts when installed" to mean that ingress ducts are not always installed in the invention).)

After conducting the § 112(f) analysis, the court concluded that the Z9000 electric heater did not infringe Claim 8 because it could not satisfy both the "filter" limitation and the "means for introducing" limitation at the same time. (See *id.* at 31.) When the Z9000 is set up inside an

enclosure, "there is no evidence that an ingress duct is being used to direct a flow of heated gas, and introduce it into the enclosure." (*Id.*) When the Z9000 is set up outside the enclosure, heated air is ducted into the enclosure, but the "Z9000 filter does not filter heated air after it passes through the enclosed structure." (*Id.*) Put another way, the court found that the Z9000 only satisfied the filter limitation when set up inside an enclosure. But in such instances, there was no evidence the Z9000 used an ingress duct, so it did not satisfy the "means for introducing" limitation as construed by the court. Because the Z9000 could not satisfy all claim limitations at the same time, the court granted Defendants' motion for summary judgment of non-infringement on Claim 8. (Mem. Op. & Order at 31); see *Deering Precision Instruments, L.L.C. v. Vector Distribut. Sys., Inc.*, 347 F.3d 1314, 1324 (Fed. Cir. 2003) ("To prove infringement, the patentee must show that the accused device meets each claim limitation, either literally or under the doctrine of equivalents.").

DISCUSSION

I. Review Standard for Motions for Reconsideration

Because Defendants still have counterclaims pending, Thermapure's motion for reconsideration is reviewed under Federal Rule 54(b).⁴ That rule provides that "any order or other decision, however designated, that adjudicates fewer than all the claims or the rights and liabilities of fewer than all the parties does not end the action as to any of the claims or parties and may be revised at any time before the entry of a judgment adjudicating all the claims and all the parties' rights and liabilities." FED. R. CIV. P. 54(b). Motions for reconsideration "serve a limited function: to correct manifest errors of law or fact or to present newly discovered evidence." *Caisse Nationale de Credit Agricole v. CBI Indus.*, 90 F.3d 1264, 1269 (7th Cir. 1996) (citation omitted). A motion for reconsideration "does not provide a vehicle for a party to

⁴ Judgment was entered in this case on March 31, 2014 (see Doc. [154]), but Defendants have pled tortious interference counterclaims, see Docs. [36] and [37], which have not been resolved. To the extent the case has been terminated pursuant to any language in the previous order, that language is vacated. And in any event, both parties agree that Federal Rule of Civil Procedure 54(b) governs.

undo its own procedural failures, and it certainly does not allow a party to introduce new evidence or advance arguments that could and should have been presented to the district court prior to the judgment." *Bordelon v. Chicago Sch. Reform Bd. of Trs.*, 233 F.3d 524, 529 (7th Cir.2000) (internal quotation marks and citation omitted). The court will, however, grant a motion to reconsider when it "has patently misunderstood a party, or has made a decision outside the adversarial issues presented to the Court by the parties, or has made an error not of reasoning but of apprehension." *Bank of Waunakee v. Rochester Cheese Sales, Inc.*, 906 F.2d 1185, 1191 (7th Cir.1990) (citation omitted).

Thermapure asks the court to reconsider its construction of the "means for introducing" limitation in Claim 8. Thermapure points out that the parties did not brief the appropriate construction for this limitation and that there was no claim construction hearing as contemplated by the Local Patent Rules. Further, Thermapure points out that Defendants did not ask the court to construe the "means for introducing" limitation or rely on this limitation in moving for summary judgment of non-infringement. Defendants respond that the court already considered and rejected Thermapure's argument that the '812 patent does not require an ingress duct. (See Defs.' Resp. Opp. Pl.'s Mot. [159], hereinafter "Defs.' Resp.," 5–6.) Specifically, Thermapure's Local Rule 56.1 statement asserted that the "Summary of the Invention" of the patent shows that ingress ducts are not necessary. (See Pl.'s Resp. to Defs.' 56.1 ¶ 29) (citing '812 patent 2:4).) The court rejected Thermapure's reading as a "strained interpretation." (Mem. Op. & Order at 30.) Thus, Defendants urge, Thermapure had notice and an opportunity to be heard on construing the "means for introducing" language but made a strategic decision not to present evidence on this claim construction. (See Defs.' Resp. at 6.)

The court now concludes that when it construed the "means for introducing" limitation in Claim 8, it did so outside the adversarial issues presented by the parties. See *Bank of Waunakee*, 906 F.2d at 1191. Thermapure did not have "notice and opportunity to be heard" on construing the "means for introducing" limitation in Claim 8 because, among other things,

Defendants acknowledged in their Local Patent Rule 4.1(a) disclosures that the structure in the "means for introducing" limitation could be an ingress duct *or a blower*, which is consistent with Thermapure's infringement arguments. (See Joint L.P.R. 4.1(a) Disclosures, Ex. B to Pl.'s Mot. [156-2], 8.) While the court looked to the Local Rule 56.1 statements for guidance, the fact remains that Defendants did not move for summary judgment of non-infringement based on the construction of the disputed phrase, and Thermapure had no reason to offer evidence to support its preferred construction. See *Novartis Corp. v. Ben Venue Labs., Inc.*, 271 F.3d 1043, 1046 (Fed. Cir. 2001) ("Of course, a party seeking summary judgment always bears the initial responsibility of informing the district court of the basis for its motion[.]"). Aided by the additional briefing submitted by the parties for this motion, the court will now reconsider its construction of Claim 8's "means for introducing" limitation.

II. Means-Plus-Function Construction

35 U.S.C. § 112(f) provides a "limited exception" to the general rule that claims must "particularly point[] out and distinctly claim[] the subject matter" of the invention. *Function Media, LLC v. Google, Inc.*, 708 F.3d 1310, 1317 (Fed Cir. 2013) (quoting 35 U.S.C. § 112(b)). Under section 112(f), a claim may "be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification or equivalents thereof." 35 U.S.C. § 112(f). In construing a means-plus-function claim, the court first defines the scope and meaning of the particular function and then examines the specification to identify the function's corresponding structure. *In re Aoyama*, 656 F.3d 1293, 1296–97 (Fed. Cir. 2011).

Here, the means-plus-function limitation in Claim 8 calls for "a heater coupled to said gas source to heat said gas to a predetermined temperature, and means for introducing a flow of said heated gas into said interior of said enclosed structure." ('812 patent at 6:46–49.) Neither party disputes the court's original construction of the function, which is to "'direct' a flow of

heated gas from the heater, and 'introduce' it to the interior of the enclosed structure." (Mem. Op. & Order at 29.) The court's prior construction of the function therefore stands.

The issue remains what structure corresponds to the function. "Under th[e] second step [of a means-plus-function claim limitation analysis], structure disclosed in the specification is corresponding structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *In re Aoyama*, 656 F.3d at 1297 (quoting *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1210 (Fed. Cir. 2003)). The specification for the '812 patent reads, in part, as follows: "Heated gas from one or more heaters is directed to a blower (which may, if desired, be a component of the heater) which directs the hot gas into enclosure through at least one ingress duct. Generally, a plurality of ducts will be used to achieve the optimum distribution of hot gas throughout enclosure." ('812 patent at 3:16–20.) The specification expressly states that a blower "directs the hot gas into enclosure through at least one ingress duct." Based on this language, Thermapure argues, it must be a blower, not an ingress duct, that performs the function of directing hot gas into the enclosure. (Pl.'s Mot. at 8.) For several reasons, the court agrees with Thermapure.

First, and perhaps most importantly, it is significant that "under § 112[(f)], a court may not import . . . structural limitations from the written description that are unnecessary to perform the claimed function." *Wenger Mfg., Inc. v. Coating Machinery Sys., Inc.*, 239 F.3d 1225, 1232 (Fed Cir. 2001). While the specification states that heated air enters the enclosure "through at least one ingress duct," a blower by itself can perform the entire function of both directing heated gas from the heater and introducing it into an enclosure. Air may flow through an ingress duct, to be sure, but the limitation's plain language does not require an ingress duct to perform the function and therefore an ingress duct does not constitute a functional limitation under § 112(f). *Wenger Mfg., Inc.*, 239 F.3d at 1232. In addition, the "Summary of the Invention" describes "installing ingress ducts through which an environmentally acceptable gas, such as air, can be directed into the enclosure[.]" ('812 Patent at 1:67–2:1–2.) The passive

voice here obfuscates the structure that is actually directing the air into the enclosure (something the "means for introducing" limitation requires). That structure is a blower.

Second, the court is persuaded that its revised construction of the "means for introducing" limitation is consistent with the claims as a whole. For example, Claims 1, 3, 4, and 5 identify an ingress duct as a limitation, while Claims 6, 7, and 8 do not mention ingress ducts at all. ('812 Patent at 4–6.) Under the claim differentiation doctrine, "there is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims." *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1302 (Fed. Cir. 1999) (quoting *Tandon Corp. v. United States Int'l Trade Comm'n*, 831 F.2d 1017, 1023 (Fed. Cir. 1987)). Claim 3, for example, contains the following limitation: "directing said heated gas into said enclosure *through said at least one ingress duct* for a time sufficient to raise the temperature of said enclosure to said lethal temperature." ('812 patent at 5:16–19 (emphasis added).) In contrast, Claim 8's means-plus-function limitation calls for a "means for introducing a flow of said heated gas into said interior of said enclosed structure" but does not specify that an ingress duct is required. The reference to an ingress duct in some claims but not others confirms that an ingress duct is not an essential element of all the claims. While Defendants correctly point out that claim differentiation is only a "guide, not a rigid rule," (Defs.' Resp. at 11 (citing *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1538 (Fed. Cir. 1991))), in this case the doctrine elucidates the patent's teaching that an ingress duct is not a required component of the invention. *Cf. also Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1354 (Fed. Cir. 2012) ("While claim terms are understood in light of the specification, a claim construction must not import limitations from the specification into the claims.").

Third, the prosecution history of the '812 patent supports the court's revised construction. Independent Claim 24 recited a "means for introducing a flow of said heated gas into said interior of said enclosed structure." (Prosecution History, Ex. D to Pl.'s Mot. [156-4], THERMA000086.) Claim 26 was dependent on Claim 24, and claimed "the system of claim 24,

wherein said introducing means *further comprises* at least one duct extending between said exterior and said interior of said enclosed structure"—that is, an ingress duct. (*Id.*) If the "means for introducing" limitation found in Claim 24 already included an ingress duct, Claim 26 would have been superfluous. Claim 26 was eventually cancelled by Thermapure, but in its remarks to the Patent Examiner, Thermapure noted that it was cancelling the claim in the interests of expediency because the Examiner had rejected Claim 26 as unpatentable over prior art. (*Id.* at THERMA000098.) The court is persuaded that this history reinforces its conclusion that an ingress duct is not the structure that corresponds to the "means for introducing" function of "directing a flow of heated gas from the heater and introducing it to the interior of the enclosed structure."

Defendants cite *ICU Medical, Inc. v. Alaris Medical Systems, Inc.*, 558 F.3d 1368 (Fed. Cir. 2009), for the proposition that the claim differentiation doctrine should not be applied to claims added during prosecution, but that case and its underlying rationale are distinguishable. There, the patents at issue involved medical valves that received fluid from medical implements without the use of an external needle to transmit fluids to and from a patient. *Id.* at 1372. The district court rejected the patentees' argument that a dependent claim further defining the term "spike" to be "pointed" should mean that "spike" in a different claim is not pointed, lest the dependent claim be rendered superfluous. *Id.* at 1376. In rejecting this argument, the district court discounted the prosecution history because the dependent claim was included in a patent issued years later than other patents involved in the litigation that were subject to the dispute over the construction of the term "spike." *Id.* And, the dependent claim was added only after the "introduction of the allegedly infringing [Defendant] products." *Id.* In other words, the court discounted the probative value the dependent claim could have in defining "spike" because the motive for creating the dependent claim appeared to be litigation-driven. The Federal Circuit affirmed the district court's ultimate conclusion that claim differentiation did not apply to distinguish the two terms. *ICU Medical, Inc.*, 558 F.3d at 1376. In contrast, in this case, Claim

26 was added during the prosecution of the only patent at issue and years before any alleged infringement took place. The court finds nothing in Thermapure's prosecution history to suggest that it added Claim 26 for strategic purposes. Accordingly, the concern that led to rejecting the prosecution history in *ICU Medical*—namely, that it may be done with an eye toward a litigation position—is not present here, and the court concludes that the prosecution history further supports its construction of the "means for introducing" limitation.

Nor does *Mahurkar v. C.R. Bard, Inc.*, No. 01-cv-8452, 2003 WL 22844237 (N.D. Ill. 2003), change the result. There, the plaintiff argued that the presence of a dependent claim, which specified a particular structure for performing a function in a separate means-plus-function claim limitation, defeated a finding that the independent claim required the dependent claim's structure. *Id.* at *7. The court disagreed, reciting the rule "that the doctrine of claim differentiation does not apply to differentiate a claim in means-plus-function format from a dependent claim that recites structural limitations." *Id.* (citing *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1538 (Fed.Cir.1991)). The court explained that "[a] means-plus-function limitation cannot be broadened by the presence of another claim specifically claiming the disclosed structure which underlies the means clause or the equivalent of that structure." *Id.* The rule is not as broad as Defendants suggest, however, as "*Laitram* does not stand for the broader proposition . . . that a means-plus-function limitation must be interpreted without regard to other claims." *Wenger Mfg., Inc.*, 239 F.3d at 1234. In this case, Claim 26 was cancelled during prosecution, so the court considers it only in the larger context of the reviewing the intrinsic record as a whole for guidance on claim construction. *Id.* at 1232.

III. Whether the Z9000 Electric Heater Infringes Claim 8

The above analysis identifying a blower as the corresponding structure for the "means for introducing" limitation in Claim 8 does not end the analysis, however. The court must still determine whether, under the court's modified construction, a genuine issue of material fact exists concerning whether the Z9000 directly infringes Claim 8.

Under the all-limitations rule, the patentee must prove that the accused product or process satisfies each limitation within the claim, literally or under the doctrine of equivalents. *Deering Precision Instruments*, 347 F.3d at 1324. In proving direct infringement, a patentee need not prove that the defendant had any intent to infringe. *Intel Corp. v. U.S. Int'l Trade Comm'n*, 946 F.2d 821, 832 (Fed. Cir. 1991). Claim construction is a matter of law, particularly fitting for summary judgment, but whether a particular product or process infringes is generally a matter for the factfinder, and summary judgment of non-infringement may be granted only if "no reasonable jury could find infringement." *Charles Mach. Works, Inc. v. Vermeer Mfg. Co.*, 723 F.3d 1376, 1378 (Fed. Cir. 2013). Recognizing the factual nature of this dispute, the court denies summary judgment to Defendants on the issue of whether the Z9000 infringes claim 8 of the '812 patent.

In its original analysis, the court noted that the Z9000 satisfied "many of claim 8's limitations: the Z9000 heats air, a source of environmentally acceptable gas, 'to the requisite temperatures,' introduces the heated air to an enclosed structure through a blower, and contains a filter and 'remote temperature monitoring.'" (Mem. Op. & Order at 28 (citing Defs.' Resp. to Pl.'s 56.1 ¶¶ 10–13).) To conclude that the Z9000 did not infringe Claim 8, therefore, the court had to find that it either did not contain a filter limitation or did not satisfy the "means for introducing" limitation. The court concluded that the machine could conceivably satisfy both limitations, just not at the same time, reasoning as follows:

Plaintiff is correct that the Z9000 contains both an ingress duct (intake and/or supply duct(s)) and a filter. What Plaintiff has not demonstrated is that the Z9000 can satisfy both limitations ("a means for introducing a flow of said heated gas into said interior of said enclosed structure," and "a filter arranged to allow said flow of heated gas to pass therethrough after passing through said interior of said enclosed structure") at the same time. When the Z9000 is set up within the enclosure, air enters the unit through the inlet, passes through the MERV filter, is heated and blown into the enclosure, and then, Plaintiff alleges, is recirculated, again passing through the Z9000's filter element. (Pl.'s 56.1 ¶¶ 13, 27; Defs.' 56.1 ¶¶ 63, 65.) *Under these circumstances, however, there is no evidence that an ingress duct is being used to direct a flow of heated gas, and introduce it into the enclosure.* On the other hand, when the Z9000 is set up outside the enclosure, the air enters the unit's inlet and passes through the filter, is heated,

and then presumably directed into the enclosure through a supply and/or intake duct. (Pl.'s Resp. to Defs.' 56.1 ¶ 64; Z9000 Instr. at RX000330–331.) In this situation, the Z9000 filter does not filter heated air after it passes through the enclosed structure. Neither of these situations involves both claim limitations.

(Mem. Op. & Order at 31) (emphasis added). Embedded in this analysis, as mentioned above, is the premise that the Z9000 electric heater *required* an ingress duct. Upon reconsideration, the court has concluded that premise was mistaken. The upshot is this: since the Z9000 does not require an ingress duct, when the heater is set up inside an enclosed structure, a blower satisfies the "means for introducing limitation." And a reasonable fact-finder could find that the Z9000 satisfies the filtration limitation (through the use of a MERV filter) and the "means for introducing" limitation at the same time. Defendants admitted that the Z9000 is "designed so that hot air emitted from the heater will recirculate through the heater's intake and pass through the installed MERV filter" (Defs.' Resp. to Pl.'s 56.1 ¶ 13). Other evidence Thermapure has offered, which Defendants do not dispute, corroborates this fact. (*See id.*) ("This is evidenced by RxHeat's [own] specification which states that the Z9000 has a "safety switch [which] limits the incoming air temperature to 140° F[.]"). Further, Thermapure's expert, Dr. Geyer, opined that the MERV filters used by the Z9000 are fine enough to "remove substantially all of the remains of organisms, including mold and insect remains, passing through the filter." (*See id.* ¶ 24.) The court concluded that Geyer's analysis of the types of filters used with the Z9000 is admissible. (*See* Mem. Op. & Order at 17–18.) A genuine issue of fact remains as to whether the Z9000, when set up inside an enclosure, uses a MERV filter in such a way as to "screen out dead organisms" (Mem. Op. & Order at 29), and therefore summary judgment is no longer appropriate on this issue.

IV. Cambridge's Liability

Because the court has concluded that a reasonable jury could find that Defendant RxHeat infringed claim 8 of the '812 patent, it now discusses whether Cambridge may be held liable under an agency or alter ego theory. The parties do not dispute that Missouri law governs

this issue. To establish a principal-agent relationship between two corporate entities, "there must be such domination and control that the controlled corporation has, so to speak, no separate mind, will or existence of its own and is but a business conduit for its principal." *Ritter v. BJC Barnes Jewish Christian Health Sys.*, 987 S.W.2d 377, 385 (Mo. Ct. App. 1999) (internal quotations and citations omitted). To hold a parent liable for a subsidiary's actions, "the control must be actual, participatory and total." *Id.* (citation omitted). In construing the evidence in the light most favorable to Thermapure, the court finds that a genuine issue of material facts remains as to whether Cambridge may be held liable for the acts of RxHeat under an agency theory.

At some point in 2008, Cambridge and Thermapure discussed licensing the '812 patent and other Thermapure intellectual property to Cambridge. (Pl.'s 56.1 ¶ 52.) No agreement was reached, and Cambridge subsequently formed RxHeat and began to compete with Thermapure in the bed bug remediation and water restoration markets. (*Id.* ¶ 53.) John Kramer is the owner and CEO of Cambridge, and he was involved in RxHeat's decision to enter the bed bug remediation market and to "launch" the Z9000 electric heater. (*Id.* ¶ 54.) Marc Braun is the President of RxHeat but prior to RxHeat's creation was employed at Cambridge. (*Id.* ¶ 7.) Braun reports to Kramer concerning RxHeat's activities "on a regular basis." (Defs.' Resp. to Pl.'s 56.1 ¶¶ 33, 55.) Further, Cambridge employees "evaluated and promoted" the case studies that accompanied RxHeat's entry into the restoration market, and the person who evaluated these case studies for RxHeat uses a Cambridge e-mail address. (*Id.* ¶ 56.)

On these facts, a reasonable jury could find that RxHeat is a mere "business conduit" of Cambridge. See *Ritter*, 987 S.W.2d at 385. Defendants have admitted that Kramer was involved in RxHeat's decision to enter the bed bug remediation market, and it appears that he had significant influence in that decision, as RxHeat's President Braun reports to him "on a regular basis." And the evidence, viewed in the light most favorable to Thermapure, shows that Cambridge employees oversaw RxHeat's development and eventual use of the Z9000 in its

business. Because a reasonable jury could find that Cambridge's control over RxHeat was "actual, participatory and total," *id.*, summary judgment in favor of Cambridge is denied.

CONCLUSION

The court grants Thermasure's motion for reconsideration [155] concerning the construction of the "means for introducing" limitation in claim 8. Based on the court's reconsideration of this limitation, it concludes that summary judgment of non-infringement of claim 8 is no longer appropriate. The court further concludes that a reasonable jury could find Defendant Cambridge liable for Defendant RxHeat's infringement under an agency theory. Because of the way the court has resolved the motion, Thermasure's request for a hearing is denied as moot.

ENTER:

A handwritten signature in black ink, appearing to read "Rebecca R. Pallmeyer", with a long horizontal flourish extending to the right.

Dated: January 7, 2015

REBECCA R. PALLMEYER
United States District Judge